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| 09/843,653 | 04/26/2001 | Raymond Floyd Babcock | ROC9-2000-0295-US1 | 9684 |

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| EXAMINER |
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ESTREMSKY, GARY WAYNE

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| ART UNIT | PAPER NUMBER |
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3677

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,653

Applicant(s)

BABCOCK ET AL.

Examiner

Gary W Estremsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “battery latch installed in a battery pack” and “curved surface” of claims 3, 9, and 11-15 for example, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 3 and 5 are objected to because of the following informalities
- a. Claim 3; line 2 - “on” should be replaced with –one–.
 - b. Claim 5; line 4 - “coupled” should be replaced with –couple–.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6-8, 10, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,413,499 to Wright.

Wright '499 teaches Applicant's claim limitations including : a "body portion" - including 50,60,65 as shown, "at least one resilient spring element" - the bend at 64 functions as a spring, "at least one protruding member" - 52.

As regards claim 2, the protruding member of the reference "extends at least partially into a battery compartment of a housing when the battery latch is installed in the housing" as shown in Fig 7 even though it is a portion of part 34 as shown in Fig 9. Claims in a pending application should be given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974). It is suggested that the claims be amended to include further structural description of the "installed" arrangement. However, no 'new matter' should be added.

As regards claim 6, the reference discloses "rails" 110,118 in Fig 11. The bottom contacting portion of the housing defining an "end stop in the interior of the housing".

5. Claims 1, 2, and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,567,545 to Murakami.

Murakami '545 teaches all limitations including : a "body portion" - 13, "at least one resilient spring element" - the legs projecting from either side of part 13, "at least one protruding member" - 13a.

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As regards claim 2, part 13a extends into a recess in a battery compartment as shown in Fig 6 for example.

As regards claim 6, part 12 reads on "housing", "first and second rails in the interior of the housing" reads on rail structure illustrated adjacent parts 12a (near opening for part 13a) as shown on the face of the patent. The housing's back wall opposite the housing's opening for part 13a reads on limitation of "end stop", functioning as a support, or "end stop" for the latch's integral spring arms.

As regards claim 7, the latch (13) of the reference has a "geometric surface" similar to the geometric surface that has been disclosed corresponding with the claim limitation. The functional portion of the limitation does not further define the structure of the geometrical surface, latch, or housing that is actually claimed as the invention. The limitation is apparently related to 'intended use' with an unclaimed "battery pack" but doesn't include the battery pack, or further define the structure that is claimed as the invention. The latch of the reference has a geometrical surface that would inherently be capable of function as claimed if attached to a battery pack. It has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. The structure of the reference teaches all limitations for the *claimed invention*. See MPEP 2114 for further information regarding interpretation of functional recitations. The claim does not appear to be a single claim for both a *product* and *process of using*. However,

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see MPEP 2173.05(p) sections I,II for additional information regarding such claims.

6. Claims 1-4, 6, 7, 9, 10, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,371,594 to Ohara.

Ohara '594 teaches Applicant's claim limitations including : a "body portion" - 19 particularly portion in the vicinity of 20, "at least one resilient spring element" -portions of 19 that are not rigidly fixed at part 20 and are deflectable, "at least one protruding member" - 19a.

As regards claim 4, part 18 is removably coupled to part 19 where "removably" is interpreted literally as 'capable of being removed' and accordingly, is broad. . It has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

7. Claims 1-4, 6, 7, 9, 10, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,871,629 to Bunyea..

Bunyea '629 teaches Applicant's claim limitations including : a "body portion" - 58, "at least one resilient spring element" - the legs 78, "at least one protruding member" - engaging portion of each leg.

As regards claim 2, part 13a extends into a recess in a battery compartment as shown in Fig 6 for example. Claims in a pending application

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should be given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974). It is suggested that the claims be amended to include further structural description of the "installed" arrangement. However, no 'new matter' should be added.

As regards claim 6, part 64 has "first and second rails" (96,96) as shown in Fig 9, that are "in the interior of the housing" - 34 as shown in Fig 1. The housing has other retaining structure for the spring that reads on broad limitation of "end stop", functioning as a support, or "end stop" for the spring.

As regards claim 9, the spring arm is shown to have a circular cross-section on the face of the patent that provides for the recited function.

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,193,707 to Mizumura.

Mizumura '707 teaches Applicant's claim limitations including "a body portion" - including 79, "resilient spring member integral to" - 93,93, "at least one protruding portion" - 73.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,413,499 to Wright.

Wright '499 does not illustrate a "curved surface" on the front of the latching bolt but it would have been an obvious design choice for one of ordinary skill in the art at the time of the invention to provide a curved surface instead of the illustrated flat surface since curved surfaces on the cam face of a latch bolt are well known to be generally equivalent to flat cam faces. See Fig 3A and 5 of U.S. Pat. No. 5,621,618, presumed to be within knowledge of one skilled in the art. One of ordinary skill in the art would have more than a reasonable expectation of success in making the proposed modification since the modification would not otherwise affect the disclosed function of the device.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,567,545 to Murakami.

Murakami '545 does not illustrate a "curved surface" on the front of the latching bolt but it would have been an obvious design choice for one of ordinary skill in the art at the time of the invention to provide a curved surface instead of the illustrated flat surface since curved surfaces on the cam face of a latch bolt are well known to be generally equivalent to flat cam faces. One of ordinary skill in the art would have more than a reasonable expectation of success in making the proposed modification since the modification would not otherwise affect the disclosed function of the device.

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12. Claims 4, 5, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,567,545 to Murakami in view of U.S. Pat. No. 4,791,756 to Simpson.

Murakami '545 teaches the claimed invention except for a removably attached slide button. However, it is well known in the art to attach slide buttons to the latch body using a push-in snap connection as shown by Simpson '756 for example. It would have been an obvious design choice or engineering expedient to manufacture the latch of Murakami '545 with a slide button made separately and snapped into engagement with the latch body as taught by Simpson '756 in order for the slide button to aid in retention of the parts in their assembled position and/or to provide a slide cover for the slot, both attributes of the separately-attached button being well known to those of ordinary skill in the art. One of ordinary skill in the art would have more than a reasonable expectation of success since the proposed modification would not otherwise affect the function of the disclosed latch device.

13. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,567,545 to Murakami in view of U.S. Pat. No. 5,415,955 to Kobayashi.

Murakami '545 teaches the claimed latch structure being part of a door that closes over the battery pack as shown in Fig 6 for example. Kobayashi '955 discloses that it is well known to provide the latch directly on the battery pack in an arrangement that is otherwise similar to that of Murakami '545. It would have

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been obvious to one of ordinary skill in the art at the time of the invention to provide a latch as taught by Murakami '545 on a battery pack as taught by Kobayashi '955 in order to allow the battery pack to be attached as a self-contained unit but retaining the technical benefits of the latch as disclosed by Murakami '545.

As regards claim 14, Murakami '545 does not illustrate a "curved surface" on the front of the latching bolt but it would have been an obvious design choice for one of ordinary skill in the art at the time of the invention to provide a curved surface instead of the illustrated flat surface since curved surfaces on the cam face of a latch bolt are well known to be generally equivalent to flat cam faces. One of ordinary skill in the art would have more than a reasonable expectation of success in making the proposed modification since the modification would not otherwise affect the disclosed function of the device.

14. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,791,756 to Simpson in view of U.S. Pat. No 5,193,707 to Mizumura.

15. Simpson '756 discloses a latch "body portion" 44 with "protruding member" – 82 and a "resilient spring member" – as shown on the face of the Patent but does not disclose the spring being "integral" with the body portion. Mizumura '707 discloses that it is well known in the art of latches to provide the spring member as an integral portion of the latch body. It would have been an obvious design choice or engineering expedient for one of ordinary skill in the art at the

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time of the invention to provide the latch of Simpson '707 with an integral spring member as taught by Mizumura '707 in order to reduce number of parts and otherwise reduce manufacturing costs. One of ordinary skill in the art would have more than a reasonable expectation of success since the proposed modification would not otherwise affect function of the latch.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 3,724,889 to Dooley.

U.S. Pat. No. 4,515,872 to Okano.

U.S. Pat. No. 5,621,618 to Komiyama.

U.S. Pat. No. 5,697,070 to Liebler.

U.S. Pat. No. 5,716,730 to Deguchi.

U.S. Pat. No. 5,769,657 to Kondo.

U.S. Pat. No. 5,800,940 to Bunyea.

U.S. Pat. No. 6,168,881 to Fischer.

U.S. Pat. No. 6,371,535 to Wei.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary W Estremsky whose telephone number is 703 308-0494. The examiner can normally be reached on M-Thur 7:30-6.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703 306-4115. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-2168.



Gary W Estremsky
Examiner
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